

AMENDMENT TO THE CLAIMS

1. (currently amended): A head suspension assembly comprising:
a suspension portion including a suspension arm;
a head ~~portion~~ coupled to the suspension arm including a slider body having a leading edge, trailing edge and opposed sides and one or more transducer elements; and
a magnetic bearing element on the ~~slider body~~head or suspension portion to form a magnetic bearing assembly operable to induce a repulsion force to provide a fly-height for the head portion of the head suspension assembly.
2. (original): The head suspension assembly of claim 1 wherein the magnetic bearing element includes at least one bearing magnet.
3. (original): The head suspension assembly of claim 2 wherein the at least one bearing magnet includes a permanent magnet.
4. (original): The head suspension assembly of claim 2 wherein the at least one bearing magnet includes an electro-magnet.
5. (original): The head suspension assembly of claim 1 wherein the magnetic bearing element includes bearing magnets on opposed sides of either a roll axis, a pitch axis or both, of the slider body.
6. (original): The head suspension of claim 1 wherein the magnetic bearing element includes a bearing magnet proximate to a trailing edge of the slider body spaced from a pitch axis of the slider body.
7. (cancelled)

8. (currently amended): The head suspension assembly of claim 1 wherein the one or more transducer elements includes a longitudinal recording element.

9. (currently amended): The head suspension assembly of claim 1 wherein the magnetic bearing element includes a conductive element on the ~~slider body~~head or suspension portion.

10. (currently amended): A bearing assembly for a data storage device comprising:

~~a head suspension assembly including a suspension portion including a suspension arm and a head portion including a slider body having a leading edge, trailing edge and opposed sides and a transducer portion including a transducer element;~~

a data storage disc having a recording layer and a magnetic bearing element; and

a magnetic bearing element on ~~the~~a slider ~~body~~ or suspension portion and a magnetic bearing element ~~on the data storage disc~~ and the magnetic bearing elements on the data storage disc and the slider or suspension portion including a bearing magnet and a conductive element to provide a repulsion force between the head ~~suspension assembly~~slider or suspension portion and the data storage disc to provide a fly height for the head ~~portion of the head suspension above a disc surface.~~

11. (original): The bearing assembly of claim 10 wherein the bearing magnet is a permanent magnet.

12. (original): The bearing assembly of claim 10 wherein the bearing magnet is an electro-magnet.

13. (currently amended): The bearing assembly of claim 10 wherein the bearing magnet is formed on the slider ~~body~~ or suspension portion and the disc includes a conductive layer or substrate to form the conductive element.

14. (currently amended): The bearing assembly of claim 10 wherein the conductive element is formed on the slider ~~body~~ or the suspension portion and the bearing magnet is formed of a magnetic recording layer on the data storage disc.

15. (currently amended): The bearing assembly of claim 10 wherein the slider includes a transducer element ~~includes~~ having a longitudinal recording element.

16. (original): The bearing assembly of claim 12 including a controller coupled to the electro-magnet to selectively energize the magnetic bearing assembly.

17. (currently amended): The bearing assembly of claim 10 wherein the data storage disc includes a magnetic recording layer and ~~recording layer~~ the bearing element on the data storage disc is at the magnetic recording layer.

Claims 18-24 - Cancelled

25. (new) The head suspension assembly of claim 1 wherein the magnetic bearing element is on the head.

26. (new) The bearing assembly of claim 10 wherein the magnetic bearing element is on the slider.

27. (new) The bearing assembly of claim 10 wherein the magnetic bearing element on the slider or suspension portion includes an inductive coil and further comprising a detector coupled to the inductive coil to measure a voltage or current.

28. (new) The bearing assembly of claim 27 wherein the slider includes a perpendicular recording element and the magnetic bearing element of the data storage disc is a magnetic recording layer.

29. (new) The bearing assembly of claim 27 wherein the magnetic bearing element on the data storage disc is a conductive layer.

30. (new) The bearing assembly of claim 10 wherein the magnetic bearing element on the slider or suspension portion includes an electro-magnet and further comprising a controller configured to energize the electro-magnet prior to rotation of the data storage disc.

31. (new) A magnetic bearing element on a slider orientated to provide a repulsion force relative to a conductive layer of a data storage disc via rotation of the slider relative to the data storage disc.

32. (new) An assembly comprising:
 an electro-magnetic element on a slider or head
 suspension; and
 a detector coupled to the electro-magnetic element on
 the slider or head suspension configured to
 measure voltage or current to detect vibration or
 fly height.